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Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Başkut Tuncak

Addendum

Mission to Kazakhstan*, **

Summary

In the present report, submitted pursuant to Human Rights Council resolution 27/23, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes shares his findings from and makes recommendations on the basis of his visit to Kazakhstan, which took place from 26 March to 8 April 2015. During the visit, he collected information on the Government's policies and programmes and on business activities, gathered victims' testimonies and identified good practices relevant to protecting and respecting human rights for which hazardous substances and wastes have implications and impacts.

* The summary of the present report is circulated in all official languages. The report itself, which is annexed to the summary, is circulated in the language of submission only.

** Late submission.

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Annex

[English only]

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Başkut Tuncak, on his mission to Kazakhstan (26 March to 8 April 2015)

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I. Introduction

1. The Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes conducted a visit to Kazakhstan, at the invitation of the Government, from 26 March to 8 April 2015. The visit was aimed at assessing the human rights implications of hazardous substances and wastes in the country.

2. The Special Rapporteur wishes to thank the Government of Kazakhstan for its invitation and the efforts made in facilitating meetings with authorities and relevant stakeholders. During the visit, the Special Rapporteur met with representatives from more than a dozen national government agencies; relevant local authorities in Almaty, Atyrau, Ust-Kamenogorsk and Karaganda; members of the parliament and the Supreme Court and representatives from the Prosecutor General's Office; representatives from the National Human Rights Centre (office of the ombudsman for human rights); and representatives from the private sector. He expresses his gratitude to the United Nations country team in Astana for its support. The Special Rapporteur also had a wide range of consultations with members of civil society organizations, social movements and communities. He is grateful to those who took the time to meet with him and share their problems, difficulties and aspirations.

A. Overview of the country

3. Kazakhstan, a landlocked country in Central Asia, is home to some of the world's largest deposits of oil, gas, metals, minerals and other natural resources. Kazakhstan is the ninth largest country in the world, stretching over 2.7 million km^2. The country consists of 14 regions, two cities of republican significance, 175 administrative areas, 87 cities, 34 settlements and 6,947 rural settlements.[1] The population, as at July 2009, was 15,880,600, with 8,473,500 (53.4 per cent) urban dwellers and 7,407,100 (46.6 per cent) rural inhabitants (A/HRC/WG.6/7/KAZ/1, para. 8).

4. Under the Constitution, Kazakhstan is a unitary State with a presidential form of government. State functions are separated and carried out by the President, the parliament and the Government, and the courts. The President is the Head of State and has the highest official decision-making power in respect of the State's domestic and foreign policy. The highest court is the Supreme Court; local courts lie below the Supreme Court in the judicial hierarchy in implementing international and domestic laws on the basis of a civil law system.

5. Since independence from the former Soviet Union in 1991, the economy of Kazakhstan has grown rapidly, fuelled primarily by extractive industries. The country's per capita gross domestic product has grown in 10 years from $1,000 to $8,400 (ibid., para. 10). Kazakhstan has the world's ninth largest oil reserves and is among the 20 largest producers of oil. The country has the world's second largest uranium reserves, and is estimated to account for almost 35 per cent of global uranium production. Furthermore, the country has 4 per cent, 8 per cent and 4 per cent of the global reserves of iron, zinc and chrome reserves, respectively, accounting for 15 per cent of global production.[2]

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[1] See Organization for Economic Cooperation and Development (OECD), *Kazakhstan, Review of the Central Administration*, OECD Public Governance Reviews (2014), p. 43.

[2] See Embassy of Kazakhstan in Washington D.C., "Country profile 2012", p. 39.

6. The economy of Kazakhstan is highly dependent on the extraction of raw materials, such as oil, gas, ferrous and non-ferrous metals, grains, coal and ores, which have accounted for over 80 per cent of total exports in recent years.[3] This has been acknowledged by State officials, who have also noted that the economy is therefore, to a significant extent, vulnerable to market fluctuations in the prices of those materials.[4] At the same time, it is believed that other sectors suffer from low productivity and an often difficult business environment.[5]

7. Most of the responsibilities for ensuring that human rights are not infringed by the mismanagement and misuse of hazardous substances and wastes rest with the Ministry of Energy and the Ministry of Economy. Following the 2014 government reorganization, the Ministry of Environment was dissolved, and its relevant responsibilities were transferred to the Ministry of Energy. In addition, the responsibilities of the Ministry of Health related to protecting human health from hazardous substances and wastes were transferred to the Ministry of Economy.

B. Current situation regarding hazardous substances and waste management

8. During the Special Rapporteur's visit serious pollution issues, which had impacts on a range of human rights, were brought to his attention. Various United Nations human rights treaty bodies have noted the adverse human rights impacts of pollution in Kazakhstan (see, for example, E/C.12/KAZ/CO/1, para. 35). The Special Rapporteur was made aware of steps that had been taken by the Government to implement necessary practices, which had led to some progress. Despite those successes, serious contamination persists and there is reason for increased concern.

9. In 2013 the Government stated that the adverse impact of hazardous substances on human health was one of most urgent problems in the field of chemical safety.[6] Priority problems in that respect included: air pollution; contamination of water, including drinking water; pesticides and other residues on food; radioactive, hazardous and municipal waste management; occupational risks due to hazardous substances in agriculture and industry; chemical accidents in industrial facilities and during transportation; illegal traffic of hazardous substances and waste; and the use, storage and disposal of hazardous chemicals of international concern.[7]

10. The Special Rapporteur commends the Government for, in a good first step, acknowledging serious problems resulting from pollution. According to the Government's own assessment, "Kazakhstan is facing a situation where its natural resources and environment are seriously deteriorating across all crucial environmental standards".[8] During the mission, the Government acknowledged that environmental contamination in Kazakhstan was creating negative impacts on the health of the population. Among other efforts, the Government has been working in partnership with international organizations on the clean-up of a class of toxic chemicals that do not degrade and that accumulate in people (polychlorinated biphenyls), and on certain issues regarding "ownerless" industrial

[3] See Economic Commission for Europe, "Regulatory and procedural barriers to trade in Kazakhstan: needs assessment" (2014), p. 13.

[4] See Kazakhstan, "Concept for transitioning the Republic of Kazakhstan to the green economy" (2013), p. 4.

[5] See European Bank for Reconstruction and Development, Strategy for Kazakhstan (2013), p. 18.

[6] Kazakhstan, "National profile on chemicals management in Kazakhstan" (Astana, 2013).

[7] Ibid.

[8] See Kazakhstan "Concept for transitioning", p. 4.

waste. However, the Special Rapporteur has grave concerns over several long-standing issues that require further action from the Government.

11. Exposure to toxic heavy metals is an ongoing and serious concern. For example, according to some studies, about 40,000 children under the age of 10 are afflicted with neurological diseases as a result of lead poisoning.[9] In one city, the Special Rapporteur observed large piles of uncovered waste from a metal processing facility that would likely contain heavy metals and be easily dispersed by wind throughout the city. Rivers are contaminated with mercury from industrial facilities, and large areas of land are contaminated with a mixture of heavy metals and other toxic and radioactive substances from a variety of extractive industries.

12. Air pollution results in up to 6,000 premature deaths per year.[10] During his visits to several sites, in particular in industrialized cities, the Special Rapporteur observed and experienced a striking level of air pollution. He heard testimonies from individuals and community members whose health conditions had been significantly compromised and who, in some cases, expressed belief that their lives were endangered owing to the effects of pollution. Major causes of air pollution are the combustion of fossil fuels for energy and emissions from manufacturing and mining activities and transportation.[11] High levels of air pollution can be observed in urban areas, with pollutant levels dozens of times higher than those of the European Union.[12]

13. In Almaty, where air pollution from vehicles is of grave concern, the Special Rapporteur was pleased to note the deployment of new buses with lower emission levels and plans to adopt tighter standards. However, a major concern remains regarding the continued import and use of older vehicles that likely do not meet the tighter emission standards of other countries. Although tighter standards have been proposed, there appears to be limited capacity to monitor emissions and enforce such standards, despite the clearly visible air pollution and adverse impacts on the quality of life of over 1 million people in Almaty.

14. Coal supplies nearly 80 per cent of the country's energy demand.[13] The country plans to increase coal-fired energy generation by more than 30 per cent between 2012 and 2020, with various options for the decades after,[14] despite being among the top 10 most inefficient countries in terms of gross domestic product per unit of energy.[15] Coal is among the dirtiest forms of energy, contributing to myriad adverse health effects, including respiratory illnesses and toxic heavy metal contamination (see A/HRC/21/48 and Corr.1, para. 22). Reliance by Kazakhstan on coal is a major reason why the country is the largest emitter of greenhouse gases in Central Asia per capita and per gross domestic product.[16] The Special Rapporteur is concerned about several allegations of massive quantities of coal ash being stored in open facilities, leading to the dispersal of toxic substances into nearby communities via wind and water.

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[9] Ibid.

[10] Ibid., p. 4.

[11] Ibid., p. 43.

[12] Ibid., p. 4.

[13] Ibid., p. 34.

[14] Ibid., pp. 32 and 35.

[15] Advisor to Minister R. Bultrikov, "Переход Республики Казахстан к «зеленой» экономике" (Transition of the Republic of Kazakhstan to a "green" economy), presentation given at the subregional workshop on achieving the Millennium Development Goals on 26 September 2012, slide 4. Available from http://adbi.adb.org/files/2012.09.26.cpp.sess4.2.rus.bultrikov.kazakhstan.green.economy.pdf.

[16] See "United Nations Development Assistance Framework (UNDAF) for the Republic of Kazakhstan 2010-2015" (2009), p. 16.

15. Ongoing radioactive, hazardous, industrial and municipal waste management issues also pose a serious human rights concern. The Government acknowledged during meetings that waste is a serious issue, and certain companies are taking steps to reduce the generation of waste. Recent reports show Kazakhstan as one of the world's largest generators of hazardous waste, and possibly the largest on a per capita basis.[17]

16. It has been noted that radioactive waste may be the greatest challenge for Kazakhstan, including waste from ongoing production and waste disposed improperly during the Soviet era, as well as a legacy of nuclear testing in Semipalatinsk, where almost 500 nuclear weapons tests were carried out.[18] The Government plans to increase its uranium production to 30,000 tons per year by 2018,[19] a significant increase from the 19,450 tons produced in 2011. There is widespread radioactive contamination in Kazakhstan, which the Economic Commission for Europe refers to as the most "enduring" environmental threat for the country.[20] A large volume of toxic and radioactive waste has been disposed of in lakes, and a large portion of known radioactive waste has not been cleaned. For example, in Ust-Kamenogorsk only 40 per cent of known radioactive waste sites have been cleaned.

17. Identifying where hazardous waste was dumped in previous years and ensuring that illegal dumping of hazardous waste does not happen present serious problems. The Special Rapporteur was troubled to find footage of oil and gas waste being dumped by waste disposal contractors into municipal storm drains on a daily basis.

18. Although the Government has shifted to in situ leaching for uranium extraction, large volumes of radioactive waste are still generated and must be stored safely for millions of years, posing what may be a growing and eternal threat to human health.[21] In addition, as the country considers options for nuclear power in the coming years,[22] spent radioactive fuel would also require long-term storage. Uranium mining also creates environmental and health risks in the extraction process, in the contamination of water from mine tailings and in the transport of uranium.

19. The country does not have a robust system for the sound management of industrial chemicals and pesticides throughout their life cycle. Kazakhstan does not have an integrated waste management system: 97 per cent of solid municipal waste ends up in uncontrolled landfills and waste disposal sites that do not meet sanitary requirements.[23] According to the information submitted by the Government to the Special Rapporteur, there are 3,796 landfills, of which 3,108 do not comply with environmental and health standards or requirements. In 2013, only 12 per cent of waste water (662.2 million m^3) was treated while the rest, 5,376.8 million m^3, remained untreated.[24]

20. Ongoing pollution in Kazakhstan threatens to exacerbate existing problems with access to safe water. A large-scale survey revealed that more than 39 per cent of the

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[17] See Secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, *Vital Waste Graphics 3* (2012), p. 7. Available from www.zoinet.org/web/sites/default/files/publications/vitalwaste_BR.PDF.

[18] See *Environmental Performance Reviews: Kazakhstan – Second Review* (United Nations publication, Sales No. 08.11.E.11), p. 15.

[19] See Embassy of Kazakhstan, "Country profile 2012", p. 40.

[20] *Environmental Performances Review: Kazakhstan*, p. 15.

[21] The half-life of uranium 235 and 238 is 713 million and 4,500 million years, respectively.

[22] See Embassy of Kazakhstan, "Country profile 2012", p. 45. See also Kazakhstan, "Concept for transitioning", p. 34.

[23] See Kazakhstan, "Concept for transitioning", p. 4.

[24] Ministry of National Economy, Committee on Statistics (2013). Available from http://stat.gov.kz/faces/homePage/ecolog?_afrLoop=3836255389659262#%40%3F_afrLoop%3D3836255389659262%26_adf.ctrl-state%3Dm7bb69sh7_21.

country's population did not have permanent access to safe drinking water, owing to the pollution of water sources and the unsatisfactory technical condition of water supply systems.[25] This issue is especially acute in rural areas, where nearly two thirds of all residents are deprived of access.[26]

21. Taking into account the above findings and current plans to address pollution, the Special Rapporteur observed that the sound management of hazardous substances and wastes is a low priority in the development agenda of Kazakhstan, which is not conducive to the protection of human rights in the short or long term.[27]

II. Legal and policy framework

A. International and regional levels

22. International treaties ratified by Kazakhstan have priority over its national laws.[28] Consequently, all international human rights and environmental agreements ratified by Kazakhstan are part of the national legal system and can be directly applied in court; however, there is considerable room for increasing the application of international obligations in the Kazakh judicial system.[29]

23. The Government has ratified several international human rights treaties that are relevant to the scope of the Special Rapporteur's mandate, including the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights and the Convention on the Rights of the Child. Pursuant to these treaties, Kazakhstan has legal obligations to protect individuals and communities by eliminating, or reducing to a minimum, the risks that hazardous substances and wastes pose to the enjoyment of several human rights, including, but not limited to, the rights to information, to participation, to an effective remedy, to life, to health and to housing.

24. Despite the country's relatively good record of ratification, the Special Rapporteur notes that the Government can improve its human rights protection and promotion by ratifying other key treaties. Ratification of the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights would allow individuals in Kazakhstan to file complaints of human rights violations concerning hazardous substances and wastes directly with the Committee on Economic, Social and Cultural Rights.

25. In addition to its legal commitments, Kazakhstan has also made a strong political commitment to strengthen human rights at home and globally (A/67/122). The Government has assumed an additional responsibility at the global and regional levels with regard to human rights protection and promotion via Kazakhstan's election as a member of the Human Rights Council (2013-2015) and has increased its cooperation with the Council

[25] "United Nations Development Assistance Framework (UNDAF) for the Republic of Kazakhstan 2010-2015", p. 16.

[26] Ibid.

[27] See the end-of-visit statement by the Special Rapporteur. Available from www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=15803&LangID=E.

[28] Constitution of the Republic of Kazakhstan, art. 4 (3).

[29] For instance, the Committee on Economic, Social and Cultural Rights expressed that it was concerned that the Covenant had not been invoked before the national courts despite constitutional guarantees of direct applicability of the provisions of the Covenant in the domestic legal order and its precedence, as an international treaty, over domestic legislation (see E/C.12/KAZ/CO/1, para. 7).

mechanisms.[30] At the regional level, as a member, and Chair (2010), of the Organization for Security and Cooperation in Europe, Kazakhstan committed to respect human rights under the Final Act of the Conference on Security and Cooperation in Europe. In the Astana Commemorative Declaration: Towards a Security Community of 2010, the Heads of State of Government of the participating States of the Organization for Security and Cooperation in Europe reiterated their "commitment to the concept, initiated in the Final Act, of comprehensive, co-operative, equal and indivisible security, which relates the maintenance of peace to the respect for human rights and fundamental freedoms, and links economic and environmental co-operation with peaceful interstate relations".

26. Kazakhstan is party to several multilateral environmental agreements regulating the sound management and disposal of toxic and dangerous products and wastes, including the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants. Although they are essential international agreements, the Special Rapporteur notes that these conventions offer protection from a narrow subset of hazardous substances — only 27 of thousands — throughout their life cycles; thus, effective national and regional laws are required to provide adequate protection from hazardous substances and wastes.

27. Kazakhstan has also ratified several conventions negotiated under the auspices of the Economic Commission for Europe, including the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention). The Government informed the Special Rapporteur that it is in the process of ratifying the Protocol on Pollutant Release and Transfer Registers to the Aarhus Convention. The Special Rapporteur welcomes this decision and encourages the Government to expedite the ratification process in order to strengthen the management of hazardous substances and wastes in a systematic and integrated manner, with a view to promoting human rights, including the right to information.

28. In relation to International Labour Organization treaties, Kazakhstan has ratified a number of agreements relevant to the mandate, such as the Occupational Safety and Health Convention 1981 (No. 155), the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148) and the Asbestos Convention, 1986 (No. 162). The Special Rapporteur notes that Kazakhstan has not ratified the Chemicals Convention, 1990 (No. 170).

B. Domestic level

29. The Constitution contains several provisions protecting public health, the environment and human rights. Article 31 imposes an obligation on the State to set an objective to protect the environment so that it is favourable for the life and health of the person. In addition, article 12 recognizes and guarantees human rights and freedoms, article 15 guarantees the right to life and article 24 seeks to protect freedom of labour and safe and hygienic working conditions. Furthermore, article 25 states that housing is an inviolable right and article 29 stipulates the right to the protection of health.

30. Kazakhstan has adopted a number of human rights-specific policies and programmes, including the National Human Rights Action Plan for 2009-2012 and the plan of action for 2011-2014 on the implementation of the recommendations made during the

[30] For example, Kazakhstan has a standing invitation to special procedures mandate holders of the Human Rights Council.

universal periodic review in 2010. In 2003, the Government created the Dialogue Platform on the Human Dimension, under the Ministry of Foreign Affairs, which aims to promote multi-stakeholder discussion involving executive, legislative and judicial branches of the Government and civil society. At the institutional level, the office of the ombudsman for human rights, the country's national human rights institution, was founded in 2007.[31]

31. Kazakhstan also has several pieces of environmental legislation relevant to the management of hazardous substances and wastes, including the Environmental Code, the Water Code and laws on protected areas, radiation safety and construction activities. In particular, issues related to chemical safety are regulated by the following legislative acts: the Labour Code (2007); the Code on Public Health and the Health-Care System (2009); the Code on Administrative Violations (2001); the Criminal Code (1997); the Code on Taxes and Other Obligatory Payments to the Budget (2008); the Law on Licensing (2007); and the Law on Industrial Safety at Hazardous Industrial Sites (2002).[32]

32. The Special Rapporteur observed that the Environmental Code has provisions that are highly relevant for the scope of his mandate, and contains human rights principles and provisions essential to the enjoyment of human rights. The Code, adopted in 2007 with a view to harmonize domestic environmental legislation with international standards, incorporates major international environmental conventions, in particular the Aarhus Convention. The Code stipulates the right of individuals to access to environmental information, to public participation in the decision-making process and to access to justice. It is commendable that the Government adopted a Code that boasts these and other human rights components; however, in view of the short time in which the Code was developed, there is a need for careful screening of its various provisions to eliminate gaps and possible discrepancies between its various constituent parts.

III. Impacts on the enjoyment of human rights

A. Right to information

33. The enjoyment of the right to information is critical in the context of hazardous substances and wastes (A/HRC/30/40). Information on hazardous substances and wastes is essential in order to prevent adverse impacts, and in order for individuals and communities to be able participate in the environmental decision-making process and seek and obtain remedy. The Special Rapporteur has emphasized that information must be available, accessible, functional and non-discriminatory in order for human rights to be respected, protected, enjoyed and fulfilled (ibid., paras. 32-37).

34. Kazakhstan has a legal obligation to fulfil the right to information as a party to numerous international human rights and environmental treaties, including the International Covenant on Civil and Political Rights. The right to information is also stipulated in article 18, para. 3, of the Constitution of Kazakhstan. Furthermore, the right to environmental information is referred to explicitly in chapter 21 of the Environmental Code. Kazakhstan has a duty to generate, collect, assess and update information on hazardous substances and wastes, to disseminate information effectively, to identify those at risk of disproportionate

[31] The office of the ombudsman has undertaken steps to become accredited by the International Coordinating Committee of National Human Rights Institutions for the Protection and Promotion of Human Rights; in April 2012, the Committee recommended that the Office be accredited B status, meaning that further work is required to comply fully with the principles relating to the status of national institutions for the promotion and protection of human rights (Paris Principles).

[32] Kazakhstan, "National profile".

impacts, to ensure confidentiality claims are legitimate and to engage in international cooperation to realize the right to information (ibid.).

35. While it is commendable that the Constitution and Environmental Code specifically recognize the public's right to information, the Special Rapporteur holds the view that the information-related provisions of the Code could be improved by defining the right to information in accordance with the criteria described above, stating explicitly the duty of the State and enterprises[33] and providing for an adequate accountability mechanism for addressing cases of non-compliance.

36. During his visit, the Special Rapporteur was informed of systemic and widespread information gaps. The mandate holder has noted previously that without adequate monitoring, no means are available to identify and mitigate against environmental hazards (see A/HRC/24/39/Add.1, para. 20). The lack of monitoring impedes complete and adequate production of high-quality information. Reports indicate that, of 17 priority problems relating to chemicals, a satisfactory level of statistical data has been generated in only eight areas; in six areas the level was unsatisfactory and in three areas there were no data.[34]

37. It is regrettable that the State-owned enterprise Kazhydromet, responsible for environmental monitoring, closed about 47 per cent of the air monitoring stations between 1983 and 1999.[35] By 2014, Kazhydromet had a total of 104 stationary observation points, covering only 34 cities, to monitor conditions of the atmospheric air.[36] That monitoring covers only 31 per cent of the territory of Kazakhstan,[37] and only a few substances are monitored, far below the coverage provided for in international standards.

38. In addition to the gaps in information about emissions, other information necessary to protect people from hazardous substances is either unavailable, inaccessible or non-functional, for example, information on: (a) the properties, uses and fate of industrial chemicals; (b) the use of pesticides, including residues on domestic and imported foods; (c) the amounts of hazardous substances released into the air, water and soil, as well as the types and quantities injected underground; (d) the types and levels of contaminants in water; and (e) baseline information about the presence of hazardous substances in air, water, soil and people before industrial activities begin or expand (see A/HRC/30/40). Some parents informed the Special Rapporteur that they had been unable to access medical records and test results for their children, who had potentially been exposed to toxic chemicals.

39. Fulfilling the right to information entails more than measuring pollution — we should also measure what we treasure. The current practice of environmental monitoring in Kazakhstan focuses primarily on measuring pollution levels. For instance, the Statistics Committee produces a range of environmental indicators, but none of them provide clear information on the impacts on the rights of the population, such as the rights to health, food, housing and water.[38]

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[33] Under the Environmental Code, enterprises are required to self-monitor environmental information and report to the Government.

[34] Kazakhstan, "National profile", table 3B.

[35] See Svetlana Katorcha and others, "To the question of compliance by the Republic of Kazakhstan with the Aarhus Convention", *Green Salvation Herald 2014*, p. 28.

[36] Ibid.

[37] See Svetlana Katorcha and others, "Kazakhstan: no information, no public, no justice" (Almaty, Arnika 2014), p. 3.

[38] See the website of the Ministry of Economy, Committee on Statistics: www.stat.gov.kz/faces/homePage/ecolog?_afrLoop=470433956078083 1#%40%3F_afrLoop%3D470433956078083 1%26_adf.ctrl-state%3D1a7hgok0sb_37.

40. The Special Rapporteur regrets that data on the impact of radioactive materials on the population are insufficient, since such materials have been a great concern in Kazakhstan. The actual impact that uranium mining and processing have on human rights, especially on health, seems practically unexplored. The environmental data should provide additional information on, for instance, the pollutants' impact on the lives of people who are affected and what the implications are, and on how to minimize the impact.

41. Data should be produced in a disaggregated manner[39] in order to indicate the impact of pollutants on different constituencies, such as children, women, the elderly, different ethnic groups and persons with disabilities or specific health conditions, with special attention paid to those who are marginalized and populations living in vulnerable situations.

42. Producing disaggregated data reinforces human rights principles, in particular non-discrimination and equality. It is regrettable that most information is presented only in an aggregated form, including data produced by Kazhydromet.[40] The Special Rapporteur notes that the cancer-related information provided to him by the Government in response to his request was not sufficiently detailed to evaluate whether there may be adverse impacts from hazardous substances, particularly on segments of the population at higher risk of such impacts, such as children and those living near industrial sites.

43. The Special Rapporteur noticed a significant level of mistrust of information produced by the Government and businesses among the general public and members of affected communities. The individuals and groups with whom the Special Rapporteur met questioned the integrity and independence of the information, and voiced their concern about their inability to pursue other rights, such as the rights to participation and to remedy, owing to inadequate credible information. Particularly troubling is that the self-monitoring information provided by businesses whose activities involve the production, use and disposal of hazardous substances and wastes is not subject to thorough verification. Where information generated by businesses is verified by government authorities, major discrepancies have been observed.[41] This is particularly problematic for victims of human rights violations, who must rely solely on the information provided by the alleged violator — either the Government or industry — in pursuit of an effective remedy.

44. With regard to the limitation of information, the Special Rapporteur finds it problematic that, in accordance with article 167 (1) of the Environmental Code, requests for environmental information may be refused if the requested information is not available, especially considering that a lack of environmental information is considered to be a barrier to realizing the right to information. Nevertheless, an absence of information cannot be the sole ground for refusing to provide information. Other pieces of legislation, such as the Civil Code (in respect of trade secrets and intellectual property rights) and the Criminal Procedure Code (in respect of secrecy of criminal prosecution, inquest and preliminary investigation), contain provisions on the grounds for denying access to environmental information, raising the possibility of provisions contradicting each other. The Special Rapporteur is concerned that the limitations on access to information are too broadly defined and that restrictions on information, especially on business information, often take

[39] Several international human rights monitoring mechanisms have encouraged the disaggregation of data. See, for example, article 31 of the Convention on the Rights of Persons with Disabilities; Committee on the Elimination of Discrimination against Women, general recommendation No. 9 (1989) on statistical data concerning the situation of women; and Committee on the Elimination of Racial Discrimination, general comment No. 34 (2011) on racial discrimination against people of African descent.

[40] See the report of Kazakhstan on the implementation of the Aarhus Convention, p. 14. Available from www.unece.org/env/pp/reports_trc_implementation_2014.html.

[41] OECD, "Avenues for improved response to environmental offences in Kazakhstan" (2008), pp. 21-22.

precedence over the rights of the population. The Government should define restrictions on the right of access to information fully in line with international human rights standards.[42]

45. Challenges in fulfilling the right to information seem to be attributable to a lack of technical capacity. In that regard, some studies refer to an absence of up-to-date equipment for detection of hazardous substances and an insufficient regulatory framework in the regional and central laboratories.[43]

B. Right to participation

46. The right to participation is enshrined in numerous human rights instruments, in particular in article 21 of the Universal Declaration of Human Rights and article 25 of the International Covenant on Civil and Political Rights. The Declaration on the Right to Development, which has significantly broadened the meaning of participation, emphasizes in article 2 (3) that participation is to be active, free and meaningful.

47. The Committee on Economic, Social and Cultural Rights has encouraged States to consult with stakeholders in the course of environmental impact assessments.[44] The Special Rapporteur on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights emphasized that Governments must facilitate the right to participation in environmental decision-making (A/HRC/7/21). The critical importance of public participation in the management of hazardous substances and wastes is also recognized in international environmental agreements.[45]

48. The right to participation in decision-making is enshrined in the Environmental Code. Article 20 of the Code requires the relevant local government authority to organize public hearings during a State environmental review. Business enterprises, also referred to as developers, have an obligation under the Code to organize public hearings to discuss the environmental impact assessment documentation of the planned activity. In the event of disagreement regarding the result of the public hearing, concerned individuals can, within 10 calendar days from the day they receive the conclusion of the hearing, contest the results before the authorities or appeal to the Court in accordance with the civil legislation of Kazakhstan.

49. Several community members shared with the Special Rapporteur their experiences of participating in public hearings held by businesses. According to testimonies, meetings were held at times that made it difficult for community members to participate. When they arrived at meetings, all the seats were taken, allegedly by individuals and groups who did not live in the affected area. In their view, many business-organized public hearings are conducted as a formality to complete government requirements, not as a means of improving project plans to address concerns. In some cases, public hearings appeared to take place after critical decisions had already been made. The Government acknowledges that there are gaps in the legislation with respect to prescribing the manner in which public hearings must be conducted.[46]

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[42] For more information, see the Special Rapporteur's statement on limitations on access to information (2014). Available from www.unece.org/fileadmin/DAM/env/pp/a_to_i/3rd_meeting/Presentations/3_A2I_Restrictions_OHCHR_SR.pdf.

[43] Kazakhstan, "National profile".

[44] General comment No. 15 (2002) on the right to water.

[45] See, for example, the Rio Declaration on Environment and Development, principle 10, the Aarhus Convention and the Strategic Approach to International Chemicals Management.

[46] See the report of Kazakhstan on the implementation of the Aarhus Convention, p. 30.

50. The Special Rapporteur was pleased to learn, during his visit, of some good practices relating to promoting participation. The Government currently supports 15 Aarhus centres nationwide in order to facilitate public participation in environmental matters; the Special Rapporteur visited one of the centres. He also learned that the local government in Ust-Kamenogorsk had established an environmental city council consisting of government representatives and members of civil society. The city had also provided funding for non-governmental organizations (NGOs) to monitor pollution levels in the city, independent of the Government or industry. The Special Rapporteur was encouraged by such active measures taken by the government as a means of enabling and empowering the public to exercise their right. Governments at the national and subnational levels should not only continue but also extend these good practices by allocating necessary resources in a sustainable manner and by engaging in the process all voices of the public, including those expressing dissent.

51. Members of several environmental NGOs with whom the Special Rapporteur met agreed that that the Government was, in general, open to NGO participation. However, he notes with disappointment that the majority of individuals, community members and environmental activists expressed a great deal of frustration about the type and form of information provided, the lack of follow-up after meetings and the low level of implementation of decisions made through public participation.

52. The Special Rapporteur is of the view that legislation on public participation should be further improved. First, the right to participation should be fully and sufficiently spelled out. Vague provisions in legislation on the right to participation linger, seemingly formalities that do not allow for members of the public to enjoy their right to active, free and meaningful participation. The Government should elaborate on what it means to guarantee active, free and meaningful participation in line with international human rights standards. To properly enforce public participation processes organized by business, a competent body with authority should scrutinize the process to ensure that the meetings take place in a free, active and meaningful way. In addition, a clear accountability mechanism should be put in place to respond systematically to non-compliance and to ensure non-repetition of undesirable practices.

C. Right to life

53. Hazardous substances and wastes pose a grave concern to the right to life in Kazakhstan. According to the World Health Organization (WHO), premature deaths attributable to air pollution rose from 3,710 in 2004 to 6,354 in 2008, increasing by over 70 per cent in just four years.[47] Even more striking was the sharp increase in premature deaths of children under the age of 5, jumping from 16 deaths in 2004 to 68 in 2008.[48] However, it is difficult to suggest a comprehensive picture of the impact of hazardous substances and wastes on the right to life in Kazakhstan, as few relevant data points are available and reliably assessed.

54. In the International Covenant on Civil and Political Rights, the right to life is recognized as an inherent and non-derogable right (arts. 4 (2) and 6 (1)). The Human Rights Committee has stated that the right to life has too often been interpreted narrowly, and considers that "inherent right to life" should be understood in broader terms.[49] The Special Rapporteur has emphasized that the right to life imposes strict duties on a State party to

[47] http://apps.who.int/gho/data/view.main.100320.

[48] Ibid.

[49] See the Committee's general comment No. 6 (1982) on the right to life, para. 5.

take effective measures to prevent and safeguard against the occurrence of environmental hazards that threaten the lives of human beings (see E/CN.4/Sub.2/1994/9 and Corr.1, para. 175). Accordingly, a State's obligation to protect the right to life includes obligations to establish and operate adequate monitoring and early warning systems to detect hazardous substances before they threaten human lives.[50]

55. Although the right to life is enshrined in article 15 of the Constitution, it is questionable whether the Government is taking all measures necessary to protect that right, in compliance with international human rights standards, in the context of hazardous substances and wastes. As stated above, the threat to life posed by hazardous substances persists, and may even be increasing. Given the urgency of the issue, the Special Rapporteur is of the view that the Government should develop detailed short- and long-term goals and targets, action plans, measurements for success, and corresponding accountability mechanisms to address cases of non-compliance, in order to protect the right to life, with the understanding that the right to life is fundamental in the enjoyment of other rights.

D. Right to health

56. The right of everyone to the enjoyment of the highest attainable standard of physical and mental health is recognized in article 12 of the International Covenant on Economic, Social and Cultural Rights. Further to ensuring the fulfilment of that right, under article 24 of the Convention on the Rights of the Child Governments have an obligation to take into consideration the dangers and risks of environmental pollution. The Committee on Economic, Social and Cultural Rights commented that the improvement of all aspects of environmental and industrial hygiene included, inter alia, the prevention and reduction of the population's exposure to harmful substances, such as radiation and harmful chemicals or other detrimental environmental conditions that had a direct or indirect impact on human health.[51] The obligations of Kazakhstan under international human rights treaties and its Constitution require the Government to protect public health against hazardous substances and wastes, including by formulating and implementing policies aimed at reducing and eliminating pollution of air, water and soil.[52]

57. The Committee on Economic, Social and Cultural Rights and the Committee on the Rights of the Child have expressed concern about the effects of hazardous substances and wastes on the enjoyment of the right to health in Kazakhstan. The Committee on Economic, Social and Cultural Rights recommended that Kazakhstan take immediate steps to address environmental hazards that affect the health of the population, strictly enforce its environmental legislation and provide the Committee with information on remedies available (E/C.12/KAZ/CO/1). The Committee on the Rights of the Child expressed concern over the impact of pollution on children, recommending that Kazakhstan take all appropriate measures to prevent and combat the damaging effects of environmental degradation on children, including pollution of the environment and food products (CRC/C/15/Add.213, para. 60).

58. In addition to those related to air pollution, several other cases involving implications for the right to health were brought to the Special Rapporteur's attention. In one case, on 28 November 2014 19 children and three adults suddenly lost consciousness and began having seizures in the village of Berezovka, about 5 kilometres from one of the

[50] See United Nations Environment Programme, *UNEP Compendium on Human Rights and the Environment*, p. 12.

[51] General comment No. 14 (2000) on the right to the highest attainable standard of health, para. 15.

[52] Ibid., para. 36.

world's largest oil and gas condensate fields (Karachaganak). The field is operated as a joint consortium of foreign investors (Eni, BG Group, Chevron and Lukoil), together with the State-owned KazMunayGas. After several days, doctors stated that the symptoms resembled hydrogen sulphide poisoning. Residents allege that the toxic substance came from the field, which the companies denied, stating that its monitoring equipment had shown no signs of exceeding maximum emission levels at the time of the poisoning. The Special Rapporteur was informed that the monitoring stations had been installed at twice the standard height (6 metres, rather than 3 metres, high) and there had been an electrical equipment failure at the facility just before the health effects were observed, which may explain how a large release occurred and why nothing was detected.

59. Notably, the community appears to be at risk of and suffering from chronic health problems, not just at risk of major accidents. A medical examination of the residents of Berezovka discovered that 80 per cent of the children suffered from lung diseases; 21 per cent of the population had cardiovascular diseases and 14 per cent had digestive system diseases.[53]

60. The Berezovka incident has had cascading effects on the rest of the population in Kazakhstan; the psychological effect, in particular, appeared to have spread across the country. What has and has not happened in Berezovka is of concern for people living outside Berezovka. During the visit, residents living miles away from Berezovka expressed their anxiety about the incident to the Special Rapporteur, distressed about what they would do if something similar happened to their village.

61. In response to the relocation request of the victims and other residents of Berezovka, the Government launched an investigation; however, the investigators concluded that there was not enough evidence to justify resettlement of the villagers. After the visit, the Government informed the Special Rapporteur that it had surveyed the residents of Berezovka as to their preferences in the event of relocation, and that the residents had been informed of a possibility of relocation. However, to date there has been no official conclusion on the cause of the outbreak, no definite plan for relocation and no one has been relocated, even though problems persist. Regrettably, the population in Berezovka still lives in a toxic environment, at great risk of infringements on their right to health. While the Government has taken some action, the Special Rapporteur is not convinced that the violations of the right to health of the residents of Berezovka have been remedied in accordance with international human rights standards, which stress that victims of a violation of the right to health should have access to effective judicial or other appropriate remedies. All victims of such violations should be entitled to adequate reparation, which may take the form of restitution, compensation, satisfaction or guarantees of non-repetition.[54] The Government and the enterprise should take all measures necessary to provide the victims with an adequate and effective remedy in line with international human rights laws and standards.

62. The case of Kalachi, known as a "sleeping village", was brought to the attention of the Special Rapporteur. For the past three years, many residents of Kalachi have been experiencing health problems, suffering memory loss and hallucinations and sleeping for days, unable to wake up without medical intervention. According to available statistics, one in four villagers have suffered from this mysterious sickness, with at least one person

[53] See "80% детей из села березовка страдают легочными заболеваниями" (80% of children from the village of Berezovka suffer lung diseases), *Уральская неделя* (Uralskaya Nedelya newspaper), 7 January 2015. Available from www.uralskweek.kz/2015/01/07/80-detej-iz-sela-berezovka-stradayut-legochnymi-zabolevaniyami-oblzdrav/.

[54] See Committee on Economic, Social and Cultural Rights, general comment No. 14, para. 59.

having experienced eight episodes.[55] Kalachi was a site for uranium mining during the Soviet era; the mine closed in 1992. According to local residents, the shaft was reopened three years ago and some work was undertaken. The villagers associate the illness with the uranium mining, but the cause is not entirely clear. The ministry responsible for health[56] and the National Nuclear Centre[57] suggested that it might be carbon monoxide poisoning, but to date there has been no official conclusion.

63. With the efforts of the Government, about 100 villagers have been resettled. However, the majority of residents, about 400, still reside in Kalachi, as they refused to accept the resettlement terms proposed by the Government, which initially included financial support for housing rental only. The Special Rapporteur later learned that the Government was considering expanding the scope of the compensation from rental subsidies to ownership. However, those measures still do not comply with the international human rights standards. In this regard, the Special Rapporteur recalls that financial remedy for relocation should be based on full and fair compensation and rehabilitation, and that the victims are entitled to fair and just compensation for any losses of personal, real or other property or goods, including rights or interests in property, and for economically assessable damage, including physical or mental harm.[58] The Special Rapporteur expresses his grave concern for the population, who are suffering from physical and mental harm due to an unknown hazardous substance in Kalachi, and urges the Government to provide an effective remedy to those affected, in accordance with the international human rights standards.

E. Right to housing

64. The Committee on Economic, Social and Cultural Rights has referred to the right to adequate housing as including the right to live somewhere in security, peace and dignity.[59] To comply with international standards, adequate housing must be habitable, in terms of providing inhabitants with protection from threats to health.[60]

65. Adequate housing is of serious concern in Kazakhstan. Many of the country's major cities developed around metal and mineral mines, metallurgy and heavy manufacturing areas and oil and gas reserves. These activities are the engine of the country's recent growth, but almost inevitably use, produce or emit large volumes of hazardous substances and wastes, causing serious risks for people living in the vicinity. Although a transition to better technologies and practices and the relocation of some industrial facilities are under way, the net effect does not appear sufficient to mitigate the serious risks that the country's rapidly growing economy poses to the enjoyment of the right to adequate housing.

66. One of the most urgent housing issues the Special Rapporteur observed was the need to ensure adequate housing for people in high-risk areas. In Kazakhstan, domestic

[55] **Error! Hyperlink reference not valid.**

[56] See "Le mystere du « village endormi » kazakh enfin resolu ? », *Le Monde*, 21 July 2015. Available at www.lemonde.fr/asie-pacifique/article/2015/07/21/le-mystere-du-village-endormi-kazakh-enfin-resolu_4692696_3216.html#wlpIPOEmpUdwAwXv.99.

[57] "Казахстанские ученые близки к разгадке 'сонной болезни' в селе Калачи в Казахстане" (Kazakhstan scientists close to unraveling the "sleeping sickness" in the village Kalachi in Kazakhstan), *Новости–Казахстан* (News–Kazakhstan). Available from http://newskaz.ru/regions/20150525/8111060.html.

[58] Basic principles and guidelines on development-based evictions and displacement.

[59] Ibid.

[60] See Committee on Economic, Social and Cultural Rights, general comment No. 4 (1991) on the right to adequate housing, para. 8 (d).

legislation requires the declaration of sanitary protection zones, areas that separate dangerous industrial zones from nearby residential areas. If a home is located in an area that has been designated as a sanitary protection zone, it is illegal to reside there. The Special Rapporteur notes, however, that many who live outside sanitary protection zones are also in high-risk areas, owing to pollution.

67. The Special Rapporteur met with government officials, affected individuals and community members who voiced their concerns about issues relating to sanitary protection zones. Government officials expressed frustration over the inability to resolve the situations of those living in such zones. It was explained that, despite the political will, the limited local budget was insufficient to relocate people living in those high-risk areas, many of which the city inherited from the Soviet era. Officials also noted that relocation presented legal challenges.

68. While the Special Rapporteur appreciated the openness of the Government to discuss the financial and legal challenges to resettlement, people living in high-risk areas continue to suffer from ongoing human rights violations. People living in sanitary protection zones are stuck, unable to sell their homes to relocate, yet unable to make necessary investments in and improvements to their property.

69. Community members in Atyrau informed the Special Rapporteur that the village in which they lived had been declared a sanitary protection zone in 2011 because new facilities had been installed in a nearby industrial zone. For the past few years, the community members had not been properly consulted or given adequate information; with respect to plans for their relocation, they had received only one written notification, which indicated that they would be relocated. These residents were stuck in the zone, waiting to be resettled, enduring deteriorating living conditions, but not able to afford to escape on their own. The significant delay in relocation is regrettable. Additionally, this practice is inconsistent with international human rights standards relevant to relocation resulting from a development project. In paragraph 38 of the basic principles and guidelines on development-based evictions and displacement, it is emphasized that, among others, those affected by such relocation have the right to relevant information, full consultation and participation throughout the entire process.

70. While stressing that financial compensation should under no circumstances be equated with an adequate remedy, the Special Rapporteur is of the view that the compensation scheme for resettlement can and should improve, to bring it into line with international human rights standards. He reminds the Government that the basic principles and guidelines on development-based eviction and displacement lay out detailed standards to implement prior to, during and after eviction.

71. The Special Rapporteur observed many conflicts between affected communities and authorities regarding compensation. When sanitary protection zones are declared, the residents of the affected areas are entitled to compensation and their properties are subject to assessment. Unfortunately, the evaluation for compensation does not seem to comply with international human rights standards. Residents of sanitary protection zones waiting to be relocated provided testimonies to the Special Rapporteur on ways in which the assessment of their property had been improperly conducted. For instance, the assessment often took place after the value had dropped as a result of the declaration of the zone. Their income sources, such as trees, were assessed only for their market price, not taking into account potential value. Furthermore, there was no complete assessment for the health problems developed among residents.

F. Right to an effective remedy

72. Article 2 (3) of the International Covenant on Civil and Political Rights sets out the obligation of States to guarantee victims of human rights violations an effective remedy. In its general comment No. 31 (2004) on the nature of the general legal obligation imposed on States parties to the Covenant, the Human Rights Committee noted that reparations should be provided to individuals whose rights had been violated. In the context of hazardous substances and wastes, the former mandate holder stated that States must also provide effective remedies and restitution to victims of those violations occurring as a result of exposure to hazardous chemicals (see E/CN.4/2006/42, para. 45). The Aarhus Convention requires parties to ensure that the public has access to effective judicial and administrative proceedings, including remedies.

73. Further to the State obligation to provide an effective remedy, the Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework outlines the responsibility of business to respect human rights, conduct human rights due diligence and establish or participate in operational-level grievance mechanisms, without hindering access to alternate mechanisms, when any harm is incurred by business activities, ensuring adequate accountability and effective redress.

74. Article 13 of the Environmental Code provides standing for individual claims for compensation of environmental damage to health and property. However, the current legislation lacks clear and specific remedial procedures for determining the jurisdiction of civil cases regarding claims raised by environmental NGOs, which sometimes leads to unjustified refusals of the courts to accept claims.[61]

75. Throughout Kazakhstan, people live in areas with pollution levels hazardous to their health. In some cases, people live in areas that the Government has declared to be unsafe, for example, the sanitary protection zones described above. Despite the Government's acknowledgement that those areas are dangerous for human habitation, and its awareness of the residents' desire to be resettled, people continue to live in sanitary protection zones against their wishes. Those wishing to be resettled are denied access to an effective remedy. However, the issue of providing an effective remedy is not limited to those living in sanitary protection zones. People throughout the country are suffering from adverse health effects due to pollution.

76. The right to an effective remedy for these and other human rights violations due to hazardous substances and wastes has many elements, including prevention. Without prevention measures, in particular mitigation and clean-up, the rights of future generations will continue to be violated. The Government has taken some steps towards the remediation of contamination. However, a great number of known contaminated sites remain to be cleaned up, some within cities, and greater efforts are required to identify contaminated sites that are as yet unknown.

77. The current system of fines for pollution violations does not prevent harm effectively or ensure an effective remedy. From meetings with the Government, it appears that the system does not add sufficient value to providing remedy to victims or remediating or preventing pollution, and functions more as a revenue source for the Government rather than as a deterrent. The Special Rapporteur was concerned to hear that, on several occasions, the Government has enacted moratoria on fining small and medium-sized enterprises for exceeding pollution limits. The Government has acknowledged a widespread corruption problem, which might have been a motivation for the moratorium. In one

[61] See the report of Kazakhstan on the implementation of the Aarhus Convention, p. 37.

Organization for Economic Cooperation and Development study, it was affirmed that the country's system of fines for pollution was often viewed as a revenue stream, not as a measure to prevent pollution.[62]

78. In addition, the attention of the Special Rapporteur was drawn to several cases where courts had found violations of environmental laws and ordered remedies, for example, measures to protect at-risk individuals, but the implementation of the remedies had not been enforced.

79. In another case, residents whose health and standard of living had deteriorated drastically as a result of hazardous substances released as a result of the improper operation of a cement factory next to their home submitted a communication to the Compliance Committee under the Aarhus Convention. In its decision, the Committee found that the failure by Kazakhstan to provide effective remedies in a review procedure concerning the omission by the public authority to enforce environmental legislation constituted a violation of its obligations to realize access to justice. The Committee also found that the failure to ensure that courts properly notify the parties of the time and place of hearings and of the decision taken constituted a failure to comply with the Convention (see ECE/MP.PP/2008/5/Add.5, para. 19).

80. The Special Rapporteur notes that limited resources are available in Kazakhstan to help affected local communities secure an effective remedy through the judicial system. Access to judicial remedy is costly; in addition to court fees, other related costs may be incurred, such as attorney fees, transportation and lost pay.

IV. Conclusions and recommendations

81. **While commending progress made by the Government to address both legacy and emerging toxic substance issues, as well as the Government's stated commitment to protect and promote human rights, the Special Rapporteur makes the following recommendations to the Government on minimizing the negative impact of hazardous substances and wastes on human rights.**

82. **Human rights laws and principles should be at the centre of the Government's policy on hazardous substances and wastes, with respect to both process and outcome, to serve as means by which to identify problems and guide short- and long-term plans, including in the process of policymaking. The Special Rapporteur recommends that the Government assess and periodically re-assess policies and programmes relevant to the production, use, release and disposal of hazardous substances and wastes against human rights laws and standards. He also advises the Government to take all measures necessary to mainstream human rights into the management of chemicals and wastes through national, public-health, labour, social, economic and environmental programmes, with a view to guaranteeing the enjoyment of all human rights on which hazardous substances have an impact, without discrimination.**

83. **Bearing in mind the disproportionate impacts felt by various communities throughout the country, the Special Rapporteur urges the Government to increase efforts to identify and protect such communities. Human rights and environmental rights education should be provided to the general public, with the aim of empowering rights holders by raising awareness of their rights. These education programmes should also target relevant government officials, to ensure that they are fully aware of the responsibilities of duty bearers.**

[62] See OECD, "Avenues for improved response", p. 6.

84. The Special Rapporteur recommends that the Government re-establish the Ministry of Environment and return the responsibilities for protecting human health from hazardous substances and wastes to the Ministry of Health. Moving forward, he strongly recommends that the Government increase coordination and coherence among governmental and non-governmental actors to better ensure the sound management of hazardous substances and wastes, with a view to protecting human rights.

85. The Government should better ensure the enforcement of court decisions on hazardous substances and wastes, and the effective application of international human rights and environmental laws in the domestic courts. In so doing, the Government should ensure that all relevant authorities, especially prosecutors, judges and lawyers, are provided with adequate training on international human rights and environmental laws and standards.

86. The Special Rapporteur strongly recommends that the Government improve the implementation of existing environmental legislation and policies. He urges the Government to remove all barriers to effective implementation, including corruption, and to strengthen engagement with civil society as implementing partners. The Government should also further clarify the party accountable in the event of non-implementation.

87. The Special Rapporteur recommends that the Government ensure that all entities — foreign, domestic and State-owned, both large and small — comply with laws to protect people and the environment from hazardous substances, while also increasing efforts to combat corruption.

88. Beyond judicial measures, the Special Rapporteur recommends that the Government establish an independent, effective and trustworthy grievance mechanism for individuals and groups to receive advice on their rights and assistance in redressing human rights violations caused by toxic substances. As part of the grievance mechanism, an independent monitoring body should be established, with the aim of corroborating information received from the Government and businesses and further providing independent and credible information to concerned populations.

89. The office of the ombudsman should increase its activities to address human rights issues related to hazardous substances and wastes. Adequate human, financial and technical resources should be provided to enable the Office to perform its functions independently from all government bodies. The Office should enhance its status in full conformity with the principles relating to the status of national institutions for the promotion and protection of human rights (Paris Principles).

90. The Special Rapporteur urges the Government to increase efforts to identify, secure and remediate sites of toxic and radioactive contamination, hold violators accountable and ensure non-repetition.

91. The Special Rapporteur urges the government to establish a comprehensive and robust system for the management of industrial chemicals and pesticides, including chemicals in products, protections for workers, and food safety considerations, in line with human rights principles. He recommends that the Government better integrate sound chemicals and waste management into its development agenda. The Special Rapporteur also recommends that the Government bear in mind the Global Plan of Action developed under the Strategic Approach to International Chemicals Management as a template of activities necessary to protect human rights from the mismanagement of hazardous substances and wastes.

92. **The Special Rapporteur encourages the Government to increase its ambition in the transition away from fossil fuels, noting that the current plan would drastically increase the use of coal-based energy in the coming decades.**

93. **The Special Rapporteur urges the Government to rapidly accelerate its efforts to reduce air pollution from stationary sources and transportation, increasing the role of the health sector and collaborating with the World Health Organization (WHO) in implementing the WHO air quality guidelines and relevant aspects of the resolution on air pollution adopted by the World Health Assembly at its sixty-eighth session in 2015.**

94. **The Special Rapporteur urges all relevant authorities in the Government to immediately take measures to provide an effective remedy to the residents of Berezovka, Kalachi and other communities living in toxic environments, in compliance with international human rights laws and standards. The Government should strengthen collaboration with WHO in respect of communities experiencing adverse impacts of toxic substances, and follow WHO recommendations for Berezovka, Kalachi and other cases on which it collaborates.**

95. **When penalties are imposed for pollution violations, the Special Rapporteur recommends that fines should not be used to finance activities that are not directly relevant to reducing future harms of such pollution. For example, funds should be used to employ mitigation technologies and best practices to prevent reoccurrence, remediate contamination, improve health care and monitoring systems and strengthen other elements necessary to protect human rights from pollution. The Special Rapporteur recommends that the Government establish a special fund for victims of hazardous substances aimed at ensuring the timely and efficient protection of the affected populations, including resettlement where appropriate, to avoid the delays usually caused by legal and administrative procedures.**

96. **The Special Rapporteur recommends that the Government require all businesses operating within its jurisdiction to have an explicit policy to respect human rights and to implement the Guiding Principles on Business and Human Rights. He stresses that State-owned enterprises, as they are an extension of the Government, must protect human rights. The Government should ensure that businesses always employ best available technologies and best environmental practices to reduce the amount of hazardous substances used, produced and generated by extractive industries.**

97. **In accordance with international human rights standards, businesses whose activities involve hazardous substances and wastes should do their utmost to provide remedies to victims, to remediate contamination caused by their activities and business relationships and to adopt policies to minimize adverse impacts on the environment and human rights. The Special Rapporteur urges the Government to ensure that businesses operating in its jurisdiction always employ best environmental practices and best available technologies in order to prevent the international transfer of polluting industries and to ensure a transition to a cleaner, healthier and greener economy.**

98. **The Government should guarantee that environmental and human rights defenders can exercise their rights, and ensure that they are adequately protected from assaults, threats, attacks and intimidation.**

99. **To better implement the right to information, the Government should ratify and implement the Protocol on Pollutant Release and Transfer Registers to the Aarhus Convention, with a view to streamlining the national pollutant release and transfer records. In addition, the Government should create enabling conditions for**

the immediate and effective implementation of the Protocol upon ratification, in addition to fulfilling its existing obligations under the Aarhus Convention.

100. **The Government should ratify the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights, thereby enabling the submission of allegations of violations of economic and social rights to the Committee on Economic, Social and Cultural Rights, especially allegations in which hazardous substances and wastes are implicated.**

101. **The Special Rapporteur calls for the ongoing amendment process of the Environmental Code, both in terms of procedures and outcomes, to be aligned with international human rights laws and standards, with special focus on marginalized and vulnerable populations. The amendment process should also actively integrate the voices of all relevant stakeholders, especially human rights and environmental activists, in identifying gaps in and strengthening provisions of the Code.**